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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,703	09/09/2003	Santi Kulprathipanja	108297	2306

23490 7590 06/22/2007

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EXAMINER	
SINGH, PREM C	

ART UNIT	PAPER NUMBER
1764	

MAIL DATE	DELIVERY MODE
06/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/658,703	KULPRATHIPANJA ET AL.	
	Examiner	Art Unit	
	Prem C. Singh	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/19/2007 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-23 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jones (US Patent 3,303,233).

Jones invention provides an alkylating agent which when condensed with an alkylatable aromatic compound produces an alkylate having a structure suitable for the

production of biologically soft detergents therefrom without sacrifice in the yield of product, effectiveness of the final detergent product or its water solubility (See column 2, lines 59-65). The alkylate intermediate, if an alkylaryl hydrocarbon, may be sulfonated and thereafter neutralized with a suitable alkaline base, such as sodium hydroxide to form an alkylaryl sulfonate (anionic) type of detergent which is most widely used for household, commercial and industrial purposes (See column 3, lines 22-28).

The alkyl benzene disclosed in Jones invention is produced by using normal paraffins separated on molecular sieve, dehydrogenating, and reacting with benzene under typical operating conditions. Alkyl benzene sulfonate in Jones invention is also produced by sulfonating alkyl benzene under typical operating conditions. Thus, alkyl benzene and alkyl benzene sulfonate produced by Jones invention are similar to the claimed compositions.

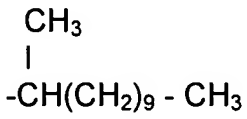
In the event any differences can be shown for the product of the product-by-process claims 1-23, as opposed to the product taught by the reference to Jones, such differences would have been obvious to one of the ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results. See *In re Thorpe*, 227 USPQ 964 (Fed. Cir. 1985).

Response to Arguments

Applicant's arguments filed 04/19/2007 have been fully considered but they are not persuasive.

The Applicant argues to use lightly branched hydrocarbons not taught by Jones.

The Applicant's argument is not persuasive because Jones is using a "relatively straight chain hydrocarbon" which typically has a formula as shown below:



(See column 2, line 35).

The hydrocarbon shown above is clearly a "lightly-branched hydrocarbon" as claimed by the Applicant.

The Applicant argues that Jones does not disclose a composition made by a process which includes the step of separating lightly branched hydrocarbons from other hydrocarbons in a feed stream. As discussed in more detail below, the Jones composition are produced by a method which straight chain aliphatic hydrocarbon separated from the mixture of hydrocarbon isomers (see Jones column 1, lines 17-21 and column 4, lines 61-68). New claims 20-23 also recite the "lightly branched" feature, and thus these claims are novel over Jones.

The Applicant's argument is not persuasive because the claim is anticipated or obvious over prior art, " When the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim although produced by a different process. See *In re Marosi, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983)* and *In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985).* See also *MPEP §2113.*

The Applicant argues about the separation of normal paraffins from lightly branched paraffins in Jones reference.

The Applicant's argument is not persuasive because Jones discloses more than once using "relatively straight chain structure" (See column 2, lines 48-51; column 3, lines 54, 59, and 62) defined by composition as shown above (See column 2, line 35). Jones further adds, "Most raw material sources of straight chain paraffins, however are mixtures containing a significant proportion of branched chain isomers in admixture with the desired normal paraffins. These isomers, if converted along with the normal paraffins to their olefin analogs, do not exclusively yield the desired alkylates bearing a straight chain nuclear alkyl substituent or a branched chain alkyl group containing two branches, each of straight chain structure." (Column 4, lines 53-61). Clearly, Jones is producing lightly branched products.

The Applicant argues that the processes which produce the Jones compounds and the compounds of claims 1-21 therefore each contain a specific and deliberate

separation step which targets different paraffinic isomers. One of ordinary skill in the art would not, therefore, be motivated to omit the critical step in Jones of enriching for linear paraffins. New claims 20-23 also recite a deliberate step of enriching a feed stream for lightly branched paraffinic isomers, and these claims are not rendered obvious by Jones.

The Applicant's argument is not persuasive because, as discussed earlier, Jones produces similar lightly branched product as claimed by the Applicant, and therefore, the Applicant's claims are obvious over Jones.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prem C. Singh whose telephone number is 571-272-6381. The examiner can normally be reached on MF 7:00 AM-3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PS/061207

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